

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Francesco DI PIERRO

Conf. 8169

Application No. 10/477,923

Group 1617

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Examiner D. Claytor

PHARMAECUTICAL AND/OR COSMETIC COMPOSITIONS
FOR THE TREATMENT OF LOCALISED ADIPOSITIES AND
CELLULITE

DECLARATION UNDER RULE 132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Francesco DI PIERRO, hereby declare as follows:

I am the same Francesco DI PIERRO names as the inventor of the above-identified application. My relevant background and experience are set forth on the attached c.v.

I declare that one skilled in the art would not have found obvious the claimed invention in view of the references cited in the Official Action. I have compared the effects of a composition prepared in accordance with Example 2 of the present specification on cellulite to compositions which contain one of the active ingredients recited in the claimed composition. The experimental results are as follows:

The effect of the composition of Example 2 was evaluated on groups of 10 women suffering from cellulite, of age comprised between 24 and 45, weighing 65.4 ± 2.3 kg on average. Each group was treated with the following

compositions:

Group 1 = placebo

Group 2 = *Escin*/beta-sitosterol complex with phospholipids

Group 3 = *Ginko biloba* dimeric fraction complex with phospholipids

Group 4 = *Centella asiatica* complex with phospholipids

Group 5 = *Coleus forskolii* standardized extract (20% forskolin)

Group 6 = Ethyl ximeninate

Group 7 = Composition of Example 2

The compositions contained the same excipients.

1000 mg of cream were applied on the thigh of each woman twice a day for 30 days in a row. On day 31, the effect was evaluated measuring the skin macrorelief ("orange peel effect") through profilometry on digital imaging of pinched thighs analysis according to Bertin C. et al., *J. Cosmet. Sci.*, 52, 199-210, 2001. The effect was also evaluated measuring high thigh circumference according to Gasbarro V. and Vettorello G.F., *Cosmetics and Toiletries*, 107, 64-66, 1992.

The results reported in Tables 1 and 2 show that the composition of Example 2 is unexpectedly and significantly higher than that of the single components.

Table 1 - Effect of the composition of Example 2 on profilometric analysis of thigh macrorelief (Rz)

Treatment	T ₀	T ₃₀
Group 1	7.27±0.7	7.29±0.8
Group 2	6.99±0.6	6.84±0.6
Group 3	7.20±0.5	6.31±0.5
Group 4	7.24±0.6	6.19±0.6
Group 5	7.28±0.3	6.62±0.6
Group 6	7.35±0.4	6.33±0.5
Group 7	7.06±0.7	2.99±0.4**

Rz = roughness parameter

** p < 01.001 vs basal Student's "t" test

Table 2 - Effect of the composition of Example 2 on left thigh circumference .

Treatment	T ₀	T ₃₀
Group 1	56.0±0.2	56.2±0.3
Group 2	55.9±0.1	56.0±0.2
Group 3	55.2±0.3	54.6±0.2
Group 4	54.8±0.2	54.5±0.1
Group 5	55.9±0.1	55.1±0.1
Group 6	53.7±0.2	52.9±0.3
Group 7	56.1±0.2	52.3±0.2*

* p < 0.01 Student's "t" test

Thus, in view of the results reported in Tables 1 and 2, declarant believes that the experimental results show that the claimed invention exhibits unexpected results.

The undersigned declare further that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Francesca J. Pica
Name of Declarant

12/07/07
Date

Dr. Francesco Di Piero, PhD

CURRICULUM VITAE

Dr. Di Piero was born in Turin (Italy) in 1967 and educated at the town's university. He graduated in Biology from the Faculty of Science (1990) and was awarded the professional qualification of a Biologist (1991). He also received his PhD in Immunology from the Faculty of Medicine and Surgery (1996).

From 1988, he took part in a number of basic and preclinical research programmes, above all in the fields of pharmacology and immunology:

- 1) he studied the etiopathogenesis and biology of leukemic meningitis - a frequent complication of acute lymphatic leukaemia - at the Anatomy and Pathologic Histology Department of "R. Margherita" children's hospital (1988-1990);
- 2) he worked on a project aimed to genic treatment of tumours and development of experimental antitumoral vaccines at the Immunology Institute of Turin University (1991-1993);
- 3) as head of the immunopharmacology laboratory of the Research Centre of Italfarmaco, Milan, he worked on the development of new immunosuppressive molecules for the treatment of transplant rejection, multiple sclerosis and rheumatoid arthritis, as well as on the study of the basic mechanisms that are responsible for septic shock (1993-1996).

As a Senior Scientist at the Scientific Department of Indena since 1996, he has been engaged in the study of the pharmacological aspects of medicinal plant-based products and particularly in the research and development of new herbal remedies in the pharmaceutical, cosmetic and dietary supplement sectors.

As SIIT, Scientific Director he has involved in researching and developing new finished product in the dietetic and in the pharmaceutical sector.

He is the author of 26 specialist papers, published in international medical research reviews and mostly devoted to immunology, oncology, haematology, and phytotherapy and over 200 popular scientific articles which have appeared in the leading Italian newspapers and magazines.

Dr. Di Piero has taken active part in several congresses (with about 20 speeches); held a number of lectures on experimental immunology and has often been invited by pharmaceutical companies and universities to hold seminars.

Scientific papers

01. Francesco Novelli, Mirella Giovarelli, Federica Cavallo, **Francesco Di Piero**, Mario Zucca, Stefania Vai, Gianni Garotta, Guido Forni.
Human T-lymphocytes activation requires IFN-gamma mediated signals.
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03. Federica Cavallo, Carlo Riccardi, Marco Forni, **Francesco Di Piero**, Antonio Soleti, Mirella Giovarelli, Francesco Novelli, Guido Forni.
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05. Federica Pericle, **Francesco Di Piero** and Guido Forni.
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10. Omella Deabate, **Francesco Di Piero**, Giovanna Damia, Maurizio D'Incalci and Guido Forni.
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11. **Francesco Di Piero**, Federica Cavallo, Federica Pericle, Sabrina Bertini, Mirella Giovarelli and Guido Forni.
Strategies for cytokine utilization in tumor therapy.
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12. Alessandra Allione, Manuela Consalvo, Sabrina Bertini, **Francesco Di Piero**, Federica Cavallo, Mirella Giovarelli and Guido Forni.
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13. Francesco Novelli, Mirella Giovarelli, Reiner Genz, Mario Zucca, **Francesco Di Piero**, Gianni Garotta and Guido Forni.
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15. F. Novelli, **F. Di Piero**, S. Bertini, A. Allione, L. Bertolaccini, P. Affaticati, G. Forni
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22. Giorgio Bertolini, Mario Aquino, Mauro Biffi, Gaetano d'Atri, **Francesco Di Piero**, Francesco Ferrario, Paolo Mascagni, Flavio Somenzi, Andrea Zaliani and Flavio Leoni.
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23. Aldo Cristoni, **Francesco Di Piero**.
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24. Aldo Cristoni, **Francesco Di Pierro**, Paolo Morazzoni, Ezio Bombardelli, Vivienne Reeve, Marina Carini and Roberto Maffei-Facino.
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26. F. Leoni, **F. Di Pierro**, M. Mengozzi, G. d'Atri, T. Sciumbata, P. Caretto, P. Villa, P. Ghezzi, E. Cillari, G. Gromo, J. Mizrahi, M. Pinori, S. Cappelletti, P. Mascagni and F. Marcucci.
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